

Response to DWR's comments in the letter from RDCC regarding the mineral leasing proposal near Clyman Bay of Great Salt Lake by Great Salt Lake Minerals

The Division of Wildlife Resources is concerned that the construction process and the proximity of the lease to Gunnison Island may disrupt nesting for American white pelicans, California gulls, and peregrine falcons. The Great Salt Lake Comprehensive Management Plan (CMP) currently allows for the proposed use with a one mile buffer around the island to minimize disturbance. No new information was brought forward by DWR that necessitates further buffering or other stipulations to constrict further development beyond that required in the CMP.

Indeed, there are examples that indicate the pelicans can thrive on rookeries with more and closer development (including permanent structures), than that called for in the current proposal. Bowdoin National Wildlife Refuge (NWR) [see Exhibit H] was established in 1936 as a migratory bird refuge and is located in the short and mixed grass prairie region of North-central Montana encompassing 15,551 acres. The islands in Lake Bowdoin within the refuge house a large colony of American white pelicans. These islands are located less than a ½ mile from the auto-tour road for the refuge (accessible to refuge visitors) and less than 2.5 miles from the Burlington Northern Railroad and US Highway 2.¹ Similarly, in Medicine Lake National Wildlife Refuge, there are numerous roads and a railroad within a few miles of the rookeries of the American white pelican.² This level of activity seems much greater than the activity that would take place near Gunnison Island in Great Salt Lake. Gunnison Island is very remote with extremely little human activity nearby. If diking were to take place, it would not be any closer than the activity within the Bowdoin National Wildlife Refuge in Malta, Montana with roads and a railroad.

DWR has further claimed that Hat Island in the south arm of Great Salt Lake was abandoned by American white pelicans after human disturbance in the 1960's. There was no source indicated, nor whether hunting was a major factor in the abandonment of the island. There have been cases of mass abandonment of nesting sites [e.g. Chase Lake NWR in North Dakota during an 8 day period in May³] (see Exhibit H) and the cause or causes of the desertion have not been determined. Some other possibilities include disturbance by predators, severe weather, food shortages and disease. However, investigations into each of these possibilities have resulted in few if any answers. Further, human disturbance as a reason for the pelicans *not* using Hat Island can only be speculative.

DWR raised concerns about juvenile pelicans confusing the evaporation ponds with forage sites and become weakened and trapped in the ponds until they are succumbed by the elements. DWR has indicated that it has happened in the past at the US Mag site to the south. Again, no citation was given so it is unclear whether this is a common occurrence or isolated event. Tom Tripp, Operational Manager at US Magnesium has not

¹ <http://www.fws.gov/bowdoin/documents/BowdMapWeb.pdf>

² <http://www.fws.gov/medicinelake/Hunting/Regs%20and%20Map.pdf>

³ <http://mountain-prairie.fws.gov/pressrel/05-23.htm>

been a major problem. Typically, they see an average of 2-4 (range is 0-10) birds per year that have been 'stuck' in the ponds. US Magnesium employees normally see these birds in August and the rescued birds are taken to Timpe Springs Wildlife Management Area for rehabilitation. On one occasion a carcass was autopsied and found to have a respiratory infection.⁴ There is little evidence that juveniles would use the evaporation ponds for foraging. In the case of US Magnesium, it was speculated that because the juvenile birds were flying with adult escorts, they were on their maiden flight and merely did not have the strength or endurance to make the flight to Timpe Springs. In most colonies, juvenile departure begins in August, when young are about 10-11 weeks of age and 1 week after their first flights. While the birds are young, the adults feed, for the most part, in the Bear River Marshes to the east and regurgitate the food for the young when they return.⁵

DWR indicated that constructed dikes "may provide breeding areas for **California gulls** that could increase gull predation on pelicans" (emphasis added). However, two paragraphs prior to that statement, DWR indicated the construction process "may disrupt nesting American white pelicans, **California gulls**, and peregrine falcons" (emphasis added). On one hand DWR claims that the nesting of gulls could be disrupted, and on the other they say nesting areas could increase and neither statement is supported with documentation.

DWR also claims impacts to other wildlife including the snowy plover, small mammals and raptors may occur, although no mention of whether the impact will be detrimental, beneficial or neutral. The agency recommends surveys be conducted to assess the bird and mammal populations present in Clyman Bay. The Division of Forestry, Fire and State Lands concurs. Surveys will be done in conjunction with the Environmental Impact Statement as part of the Army Corps of Engineers permitting process. It might be noted that no decrease of small mammals and raptors have been reported in other areas where evaporation ponds are located nearby including US Magnesium ponds, and Great Salt Lake Minerals in Bear River Bay. Bear River Migratory Bird Refuge has reported that the Bald Eagle uses the refuge in the winter for feeding and resting during the day.⁶ If there is reduced populations of raptors or small mammals near existing ponds there has been no empirical data to support the claim.

DWR claims that construction of ponds may affect nesting waterbird species such as double-crested cormorant, gulls, great blue herons and Caspian terns. Again data to support the claim is not given. However, Caspian terns have benefited from their ability to make use of human-created dikes and dredge spoil islands for breeding.⁷ In the case of double-crested cormorants, US Fish and Wildlife Service recently extended cormorant control options to other government entities in the central and eastern US because the

⁴ Personal communication, April 30, 2007.

⁵ Post, F. J. 1980. Biology of the North Arm. *In* Great Salt Lake – A Scientific, Historical and Economic Overview. Edited by J. Wallace Gwynn, PhD. Utah Department of Natural Resources Bulletin 116.

⁶ <http://www.fws.gov/bearriver/birds.html>

⁷ <http://web1.audubon.org/waterbirds/species.php?speciesCode=caster>

cormorants are such opportunistic fish feeders that they are taking advantage of after fish-stocking release, downstream of fish hatcheries, or at aquaculture facilities.⁸

Cormorants. The habitat for cormorants is typically in brackish and freshwater habitats on lakes, river, swamps, bays and coasts. The double-crested cormorant nests in colonies. Both the male and female will build a nest of sticks, twigs and seaweed. Nests are built in trees and shrubs and on the ground of rocky cliffs and islands. The female lays three to five eggs. Both parents incubate the eggs for about a month. Both parents also feed and take care of the chicks. The chicks fledge in 35-40 days.⁹ Populations of double-crested cormorants have increased dramatically over the last thirty years. This species has no special protection under CITES or the Endangered Species Act.

The Division of Forestry, Fire and State Lands does not dispute the dynamic ecology of Great Salt Lake and the importance of lake levels on the migration patterns of waterfowl, water birds, and other wildlife species. The construction of the dikes should not change any of these dynamics. The introduction of salt will not change with the expansion project of Great Salt Lake Minerals. The majority of salt inflow comes from three major sources: Bear River, Weber River and Jordan River. The evaporative ponds only concentrates the salts that are already there. In its present operations, Great Salt Lake Minerals, as well as other salt producers on the lake, use evaporative ponds along with their periodic flushing, dike maintenance, pumping of brines and other operational processes with wildlife either unchanged or able to adapt to the changes. The mere presence of dikes and wildlife in the vicinity of the dikes, whether in a bird refuge, duck club, or industry lands indicates that the relationship of the dikes with wildlife is little understood and could possibly be beneficial in some cases.

⁸ <http://web1.audubon.org/waterbirds/species.php?speciesCode=doucor>

⁹ <http://www.nhptv.org/Natureworks/doublecorm.htm>